



IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of:

Akiko HEMMI et al.

Serial Number: 09/887,345

Art Group Unit: 1751

Filed: June 25, 2001

Examiner: Brian P. Mruk

For: LOW-MOLECULAR (METH)ACRYLIC ACID (SALT)-BASED POLYMER AND ITS
PRODUCTION PROCESS AND USES

DECLARATION UNDER 37 CFR §1.132

Honorable Commissioner of Patents and Trademarks

Washington, D.C. 20231

Sir:

I, Shigeru YAMAGUCHI, a citizen of Japan, hereby declare and state the following:

1. I graduated from the Department of Applied Chemistry, Faculty of Engineering, Osaka City University, Osaka, Japan in March 1981, and also received a Master of Engineering from the Faculty of Engineering, Osaka City University, Osaka, Japan in March 1983.
2. Since April 1983, I have been employed by Nippon Shokubai Co., Ltd. of Osaka, Japan, the assignee of the present application. During my employment there, I have been engaged in research and development of water-soluble polymer at the Polymer Research Laboratory of the company.
3. I am also a co-inventor of the present application.
4. I have read and am familiar with the Office Action dated June 4, 2003, in the above-referenced patent application.
5. I have read and am familiar with the contents of the following patent related document cited in the Office Action dated June 4, 2003: EP 398,724 to Hughes et al.

6. Under my supervision and control, the following experiments were conducted.

EXPERIMENTS

(1) Production of Acrylic Acid-Maleic Acid Copolymer.

An acrylic acid-maleic acid copolymer was prepared in the same way as of Examples 1-3, 5, 7, 22-38 and 41 of EP 398,724.

(2) Measurement of Properties of Acrylic Acid-Maleic Acid Copolymer.

The clay dispersibility in high-hardness water of the copolymer as obtained above were measured according to the procedure described page 36, line 13 to page 37, line 12 in the present specification.

The results are shown in Table 1 below.

[Table 1]

Examples of Hughes	Clay dispersibility in high-hardness water	Examples of Hughes	Clay dispersibility in high-hardness water	Examples of Hughes	Clay dispersibility in high-hardness water
1	0.33	25	0.34	33	0.35
2	0.28	26	0.29	34	0.34
3	0.31	27	0.33	35	0.36
5	0.35	28	0.31	36	0.34
7	0.28	29	0.33	37	0.33
22	0.26	30	0.32	38	0.35
23	0.33	31	0.32	41	0.34
24	0.32	32	0.33		

7. New claim 13 of the present invention recites that a clay dispersibility in high-hardness water is not less than 0.47. As is evident from Table 1, the polymer of Examples 1-3, 5, 7, 22-38 of EP 398,724 has a clay dispersibility in high-hardness water of much less than 0.47. Thus a polymer which falls within the range of claim 13 of the present invention is not obtained in EP 398,724.

I hereby declare that all statements made herein of my own knowledge are true; and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both under 1001 of Title 18 of the United States Code and that such willful false statements may jeopardize the validity of the application or any patent issued thereon.

Signed this 20th day of August, 2003



Shigeru YAMAGUCHI

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